

Title (en)

Method of making an optical fiber preform.

Title (de)

Verfahren zum Herstellen einer Vorform für optische Fasern.

Title (fr)

Procédé de fabrication d'une préforme pour fibre optique.

Publication

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Application

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- US 8175587 A 19870805

Abstract (en)

A method is disclosed for making a step-index optical fiber having a steep refractive index gradient between core and cladding. Core glass particles comprising a base glass and a refractive index-increasing dopant are deposited on a mandrel (20). The mandrel is removed and the resultant soot preform is consolidated to form a core preform (40) having a dopant-poor surface region. The core glass preform is stretched and the hole therein is closed to form a core bait rod. Cladding glass soot is deposited on the core bait rod at a density which is at least 0.5 g/cc. This is accomplished by directing the flame from an auxiliary burner (66) onto the core bait rod immediately prior to the deposition of cladding soot thereon. The resultant preform is consolidated and drawn into an optical fiber. In another embodiment, the etched core preform is overclad with a layer of cladding glass, and the composite preform is stretched prior to applying a second overclad layer.

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Citation (search report)

- [X] US 4578097 A 19860325 - BERKEY GEORGE E [US]
- [AD] EP 0100174 A1 19840208 - CORNING GLASS WORKS [US]

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